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The policy is specifically limited to addressing behaviours on the unit and does not include weekend activities off the unit.

In retrospect, the commitment of the in-patients to their place on the unit is evident in their efforts to stem behaviours which might result in their discharge.

This approach depends upon the staff's ability to offer meaningful sanctions for self-harm, while continuing to offer support, alternative coping strategies and therapies. Such an approach is not necessarily directly applicable to non-institutional settings, for example in the community. However, the contagious nature of self-harm is well recognised in schools, where consideration of the model may prove useful.

## Conclusions

There is an obvious and pressing need for more research into the area of self-harm, in particular non-suicidal self-harm in adolescents, not least in the areas of intervention and treatment. We cannot rely with confidence upon extrapolation of adult findings to support our work with teenagers.

There is a risk that a need to understand the behaviour (for self-harm is not an illness) may be confused with an apparent acceptance, condoning or even fostering the behaviour. Since violence towards others is unacceptable, perhaps we might consider violence towards oneself, at least, in a similar vein. We may accept the continuation of self-harm behaviours when working

with adults, but I view it as an inappropriate response when working with adolescents.

## Declaration of interest

None.

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# Benzodiazepine and hypnotic prescribing in an acute adult psychiatric in-patient unit

## AIMS AND METHOD

We examined the prescribing practices concerning benzodiazepine and hypnotic medications at a university teaching hospital. Retrospective data from 74 consecutively admitted in-patients were analysed.

## RESULTS

Benzodiazepines were prescribed to 51% of individuals on a routine basis

and to 66% of individuals on an 'as required' basis. An indication was documented for 70% of individuals prescribed benzodiazepines routinely and for 29% of patients prescribed benzodiazepines 'as required'. Hypnotic agents were administered to 24% of patients on a routine basis and 23% of individuals on an 'as required' basis. An indication was documented for

39% of patients prescribed hypnotic agents routinely and 12% of patients prescribed hypnotics 'as required'.

## CLINICAL IMPLICATIONS

Benzodiazepine and hypnotic agents are frequently prescribed without any clear reason provided in the patients' medical notes or prescription card.

Benzodiazepines are widely prescribed in clinical practice but because of their propensity for causing dependence there are several guidelines in place in relation to their administration (British Medical Association & Royal Pharmaceutical Society of Great Britain, 2005; Taylor *et al*, 2007). There is also some evidence that non-benzodiazepine hypnotic agents such as zopiclone and

zolpidem can lead to misuse and dependence if prescribed for extended periods (Hajak *et al*, 2003). A recent UK study (Choke *et al*, 2007) found that 54% of all patients were administered lorazepam in an acute psychiatric in-patient setting. Only one published study to date has examined prescribing practices for both benzodiazepine and hypnotic agents in an acute in-patient



setting, and found high rates of both benzodiazepine (83%) and zopiclone (57%) administration (Wheeler *et al*, 2007).

We aimed in this study to examine both routine and 'as required' prescribing of all benzodiazepine and non-benzodiazepine hypnotic agents in an acute in-patient psychiatric setting at a university teaching hospital – University College Hospital, Galway. The psychiatric unit treats patients from both urban (Galway city) and rural (Connemara–West Galway) settings.

## Method

Retrospective data were collected from 74 consecutive cases of patients admitted to our psychiatric unit over a 3-month period (June–August 2007). The information extracted from the prescription cards and medical notes for each in-patient included:

- patient diagnosis
- admission status
- whether a benzodiazepine or hypnotic agent was prescribed during the period of admission
- whether a clinical indication for the benzodiazepine or hypnotic agent was recorded in the medical notes for routine prescribing, or in the medical notes or the prescription card for 'as required' prescribing
- names, dosages, diazepam equivalents (Schweizer & Rickels, 1998) and duration of administration of all medications.

## Results

The study sample comprised 43 male (58%) and 31 female (42%) in-patients, with a median age of 43 years (range 19–76; 8 individuals were aged 60 years or over). Twenty-three patients (31%) had been admitted involuntarily. Diagnoses were 20 bipolar affective disorder, 16 recurrent depressive disorder, 13 schizophrenia, 13 schizoaffective disorder, 9 alcohol dependence disorder, 2 polysubstance misuse and 1 adjustment disorder (not related to bereavement). A second psychiatric disorder was present in 12 patients and in 9 cases this was alcohol

**Table 2. 'As required' prescribing**

	Patients, n (%)
Benzodiazepine prescribed	49 (66)
Clonazepam	26 (53)
Lorazepam	14 (29)
Chlordiazepoxide	5 (10)
Diazepam	2 (4)
Alprazolam	2 (4)
Indication documented	14 (29)
Elated mood	5 (36)
Anxiety	4 (29)
Agitation	3 (21)
Detoxification	2 (14)
Hypnotic prescribed	17 (23)
Zopiclone	9 (53)
Zolpidem	8 (47)
Hypnotic indicated	2 (12)

dependence syndrome. Although our unit provides acute in-patient care (there is a further long-stay ward in another hospital in the same catchment area), only two individuals with schizophrenia or schizoaffective disorder and one individual with bipolar disorder were experiencing the first episode of their illness. Eight individuals (11%) had been taking prescribed benzodiazepines (including both of the patients who were diagnosed as polysubstance misusers) and four individuals (5%) had been taking prescribed hypnotic agents prior to their admission to hospital.

Benzodiazepine prescribing was not associated with the patients' age or gender, and there was no difference in the routine prescribing rates for individuals admitted on a formal or informal basis. Benzodiazepines were prescribed on an 'as required' basis more frequently to informally admitted individuals ( $P=0.030$ ). There was no difference in any demographic or clinical parameter between individuals who received benzodiazepines routinely or 'as required', other than whether the admission was on a formal or informal basis. Benzodiazepine prescribing was not associated with diagnosis except for alcohol dependence syndrome (seven out of nine individuals) and polysubstance misuse (two out of two individuals). Individuals who were prescribed hypnotic agents either routinely ( $P=0.018$ ) or 'as required' ( $P=0.025$ ) were older than those who were not prescribed these medications. Hypnotic prescribing was not associated with any other demographic or diagnostic parameter. There was no difference in any demographic or clinical parameter between individuals who received hypnotic agents on a routine or an 'as required' basis.

Routine benzodiazepine and hypnotic prescribing are detailed in Table 1. Benzodiazepines were prescribed routinely to 38 patients, with clonazepam the most commonly prescribed agent. An indication was recorded in the medical notes in 70% of cases. Hypnotic agents were prescribed routinely in 18 cases with an indication recorded in 39% of cases.

The prescription of 'as required' medications is detailed in Table 2. Benzodiazepines were prescribed to 49 patients and an indication was documented in either

**Table 1. Routine prescribing**

	Patients, n (%)
Benzodiazepine prescribed	38 (51)
Clonazepam	24 (63)
Chlordiazepoxide	7 (18)
Diazepam	4 (10)
Lorazepam	3 (8)
Indication documented	26 (68)
Detoxification	9 (35)
Elated mood	7 (27)
Anxiety	6 (23)
Agitation	4 (15)
Hypnotic prescribed	18 (24)
Zopiclone	9 (50)
Zolpidem	9 (50)
Hypnotic indicated	7 (39)

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the prescription card or the medical notes in 29% of cases. Hypnotics were prescribed to 17 patients and an indication was documented in the prescription card or the medical notes in 12% of cases. Two patients were administered two benzodiazepine agents simultaneously. The mean duration for benzodiazepine prescriptions was 37 days; however, only five patients (13%) received them for more than 4 weeks. Of these individuals, two were being prescribed benzodiazepines as an adjunctive treatment for mania. The mean daily diazepam equivalent dose for those prescribed benzodiazepines was 21.4 mg, and one patient received a benzodiazepine dose (12 mg of clonazepam) greater than that specified in *British National Formulary (BNF)* guidelines (British Medical Association & Royal Pharmaceutical Society of Great Britain, 2005).

There were a few demographic and clinical differences between individuals receiving benzodiazepine and hypnotic agents. Individuals receiving hypnotic agents were on average 10 years older than those receiving benzodiazepines (age 51 years v. 41 years). Benzodiazepines were prescribed in greater quantities than hypnotics for all psychiatric diagnoses, and in particular for individuals with alcohol dependence, with seven out of nine individuals receiving benzodiazepines whereas only one individual received a hypnotic agent.

## Discussion

In this study of an acute in-patient psychiatric ward we found high levels of prescribing of both benzodiazepine and hypnotic agents. Benzodiazepine prescribing was not associated with age, gender or diagnosis (except for treating alcohol withdrawal syndrome) and only 'as required' prescribing was more common in informally admitted individuals. The prescribing of hypnotic agents did not differ substantially from that of benzodiazepines, other than the patients being somewhat older and not requiring these medications for medically assisted treatment of alcohol withdrawal.

Although we found high levels of prescribing of both benzodiazepine and hypnotic agents, these rates of prescribing were significantly lower than that found by Wheeler et al (2007) in a similar patient group. However, no clear indication was recorded in the medical notes or prescription card in many cases, particularly in relation to 'as required' medication. Both consultants and registrars can prescribe medication in our acute unit; however, all medication prescribing is regularly reviewed by consultants. Only one patient was prescribed a benzodiazepine agent in excess of the *BNF* recommended dosing range and no patient received a hypnotic agent in excess of the *BNF* recommended dosing range.

Benzodiazepines are indicated for less than 4 weeks according to a number of guidelines (National Institute for Health and Clinical Excellence, 2004; British Medical Association & Royal Pharmaceutical Association of Great Britain, 2005; Taylor et al, 2007), yet 13% of our patients were prescribed these medications for a longer period. In two patients, however, benzodiazepines were prescribed as an adjunctive treatment for mania. The other three

patients were prescribed benzodiazepines for longer than 12 weeks, and thus had a significant risk of benzodiazepine dependence.

Mandatory documenting of reasons for prescribing both benzodiazepines and hypnotic agents for 'as required' medications should be detailed on the prescription card. We previously noted in our acute psychiatric unit that nursing staff documented a reason for prescribing 'as required' medication in 51% of cases (Hallahan et al, 2007). We believe that clear indications for prescribing medications on the prescription card by doctors and clear reasons for administering 'as required' medications in the patient's notes by nursing staff would decrease inappropriate prescribing and administration of medications including benzodiazepines and hypnotic agents.

Our sample size is modest to draw definitive conclusions; however, we believe that our study and other recent studies (Choke et al, 2007; Wheeler et al, 2007) demonstrate that the quality of prescribing medication can be improved upon, and that ongoing data collection, review of that data and action in relation to benzodiazepine and hypnotic prescribing are required.

## Implications of the study

Benzodiazepine and hypnotic agents are widely prescribed in the acute in-patient psychiatric setting. In many cases no indication is documented for the administration of either benzodiazepines or hypnotics on the prescription card or in the medical notes. This could be rectified with clear hospital guidelines and ongoing audit of benzodiazepine and hypnotic prescribing practices.

## Declaration of interest

None.

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